Pamunkey and Mattaponi Rivers Important Bird Area
Fact Sheet

Location: New Kent, King William, King & Queen, and Hanover Counties
Total Size : 55,931 ha (138,150 acres)
Elevation: 0-54 m (0-177 feet)

Site Description: The tidal fresh reach of the York River begins near the confluence of the Pamunkey and Mattaponi Rivers and extends westward to below the crossing of Route 360. This area supports one of the largest complexes of brackish to tidal fresh marshes in North America. The surrounding landscape is home to the Pamunkey and Mattaponi Indian tribes and contains several historic plantations. Until recently, the area has experienced less pressure for residential development compared to other jurisdictions within the region. Uplands remain predominantly rural and are used for agriculture and forestry. The waterways support extensive forested wetlands.

Tidal Fresh Marsh

Protection: The area has relatively few parcels of land within protected status with owners including The Nature Conservancy, the Pamunkey Tribe, and the Mattaponi Tribe. However, large tracts of both upland and wetland in private ownership are under progressive management for wildlife including birds.

Birds: The oligohaline and tidal-fresh marshes of the lower Pamunkey and Mattaponi Rivers likely support the largest population of King Rails and Least Bitterns in Virginia. These marshes also support thousands of staging Soras and Tree Swallows during fall migration and high concentrations of waterfowl during winter. Forested wetlands support several species of neotropical migrants during the breeding season and are important stopover habitats during fall migration. These patches support large communal roosts of mixed blackbirds during the winter including the Rusty Blackbird. The waterways support significant and growing populations of Bald Eagles and Osprey. The site has not been a major area of bird research and much remains to be learned about its appropriate role in bird conservation.

Conservation and Threats: There are two primary threats that are currently of concern including 1) the loss of marshes to sea-level rise and 2) the conversion of open land to residential development. Over the past decade, the oligohaline marshes have begun to exhibit a transition in vegetational composition related to sea-level rise. Sediment deposition is not keeping pace with subsidence and sea-level rise causing a lowering of the marsh surfaces and a corresponding shift in the vegetation community. This drowning of the marsh will result in a shift in the associated bird community. Because this marsh type is rare within the region, changes will continue to be cause for concern. Until recently, the upland landscape within the area has remained rural with

relatively little development pressure. Since 2000 there has been an increase in residential development, particularly along primary shorelines. Many of the species that depend on habitats within the area are sensitive to development.

Important Bird Areas of Virginia

IBA Nomination Form

The Important Bird Area (IBA) program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S. has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

For more information, visit: http://www.audubon.org/bird/iba/index.html
Or contact Aimee Weldon, the Virginia IBA Coordinator
P.O. Box 1089, Ashland, VA 23005 aweldon@audubon.org 804-370-3528
Additional copies of the Nomination Form may be downloaded from www.virginia-iba.org

Thank you for your interest in the Important Bird Areas Program. Please tell us about the areas that you think may meet the criteria by completing as much of this form as possible. Detailed instructions for fields requiring clarification may be found in the **INSTRUCTIONS FOR COMPLETION OF IBA NOMINATION FORM**. It is important that the data and information about the sites are recorded in a standard format, so that they may be accurately evaluated.

I. Nominator Information	
YOUR NAME: **Bryan D. Watts**	PHONE: **(757) 221-2247**
AFFILIATION(if any) **Center for Conservation Biology College of William and Mary**	EMAIL: **bdwatt@wm.edu**
ADDRESS: **PO Box 8795**	
ZIP CITY, STATE, **Williamsburg, VA 23187-8795**	DATE: **11/29/06**

II. Site Details	
SITE NAME: **Pamunkey and Mattaponi Rivers**	
CITY,TOWN,COUNTY: **New Kent, King William, King & Queen, and Hanover Counties**	AREA: **55, 931** (circle one) acres, sq. miles., **hectares**
ELEVATION: Minimum **0** (circle one) feet, **meters**	ELEVATION: Maximum **53.8** feet, **meters**
COORDINATES (at site center) Latitude **37° 35' 45"**	Longitude: **-76° 57' 20"**

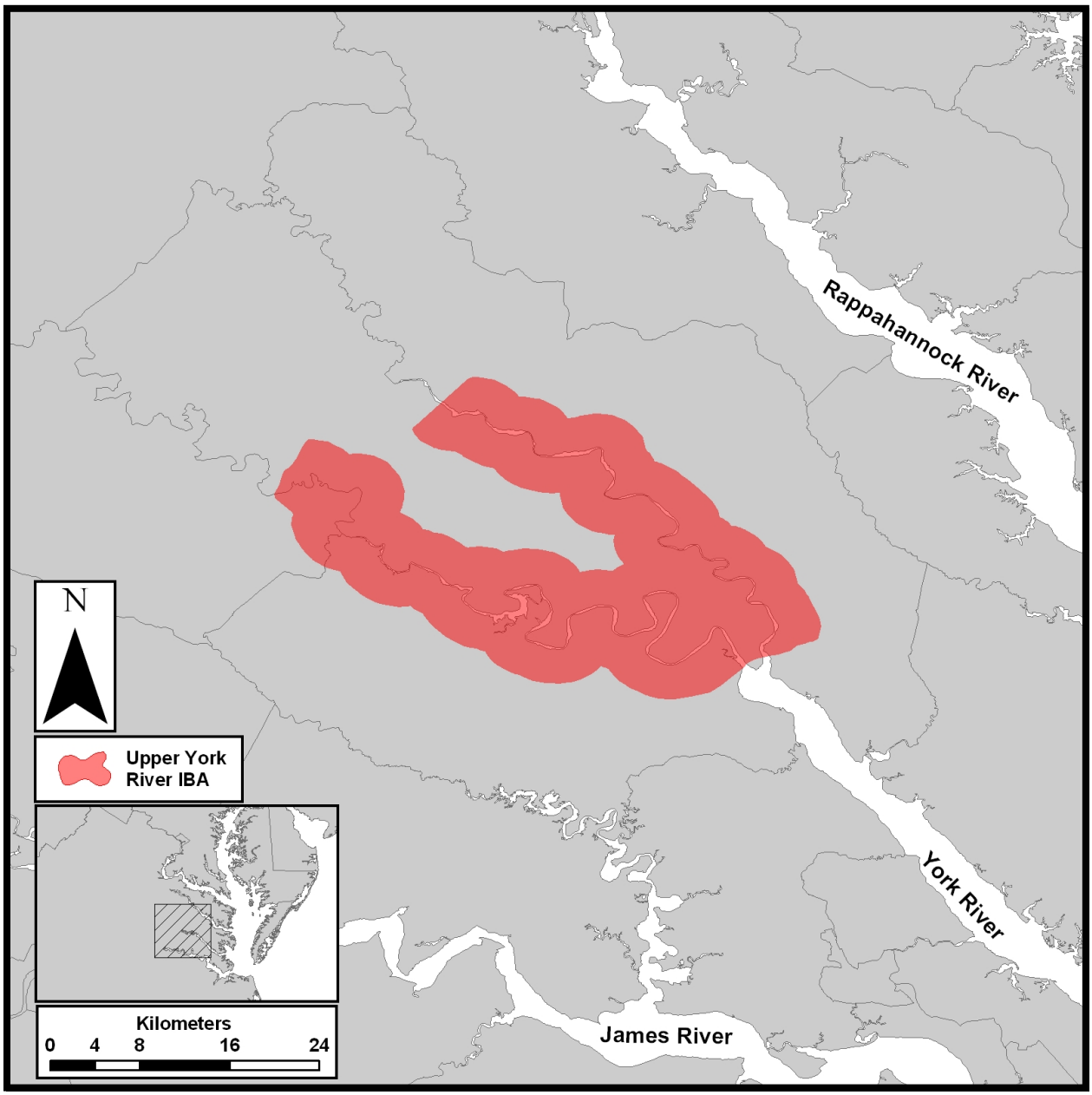
Ownership: (Circle One) **federal,** state, **private**, international waters, communal, religious group, mixed, other

Ownership Details: (List owners. If "other" ownership, please describe. If the property is privately owned, please provide contact information and specify if owner is aware of nomination)

Pamunkey Indian Tribe
Mattaponi Indian Tribe

The Nature Conservancy
Many private holdings

Road Directions to site (or location /distance to nearest town) Please include a map if convenient.



Site Name: Pamunkey and Mattaponi Rivers

III A. Species List and Population Data

List the species of significance. Provide all other information at your disposal (note: Types of Birds Counted is required). Each record should represent a count at the site in a given year. **Please use the following codes when completing this chart.**

1. **Relative Abundance:** Abundant = **A,** Common = **C**, Frequent = **F**, Uncommon = **U**, Rare = **R**, Not available = **NA**
2. **Count:** For all species, enter either **Density** (# per unit of area), please specify ha, acres, sq. mi. or **Max #.** **Max #** is the highest # observed on one visit in a given season. Total season counts may be entered for migrating raptors only.
3. **Types of Birds Counted:** Individuals = **I**, Breeding Pairs = **B**, Adults only = **A** , Males only = **M,** Females only**= F,** Nests = **N**
4. **Reliability/Data quality:** Good = **G**, Medium = **M**, Poor = **P**, Unknown = **Un**
5. **Source:** Enter the number of the source in this box, and list corresponding details of the sources in Source Details (IIIB) section. Sources may include published reports, surveys, personal observations or field notes.

( ) values represent population thresholds per the Virginia IBA instructions.

Species Name	Season Month/Day of Observation	Year of Observation	[1]Relative Abundance	[2]Counts		[3]Types of Birds Counted	[4]Reliability /Data Quality	[5]Source
				All Groups	Migrating Raptors Only			
				Density # /___ area or Max # / visit	Total Season Count			
American Black Duck	Summer	1995		**3**[a](5)		B	M	1, 2
Bald Eagle (breeding)	Spring	2006		**26**[b](30)		B	G	3
Bald Eagle (summer)	Summer	2006		**36**[c](100)		I	G	4
Bald Eagle (winter)	Winter	2005		**70**[d](100)		I	M	5
King Rail	Summer	2001		**300**[e](30)		B	M	2, 6
Least Bittern	Summer	2001		**100**[f](20)		B	M	2, 6
Barn Owl	Summer	1997		**3**[g](5)		B	M	1, 7, 8
American Woodcock	Summer		**C**[h](50)					
Red-hded Woodpecker	Winter	2003		**33w**[i](60)		I	Un	9
Rusty Blackbird	Winter	2005		**550**[j](200)		I	Un	10
Whip-poor-will	Summer		**U**[k](500)					
Northern Bobwhite	Winter			**23w**[l](100)		I	Un	9
Wood Thrush	Summer		**C**[m](1000)					
Prothonotary Warbler	Summer		**U**[n](430)					

Worm-eating Warbler	Summer		**U**[o](100)						
Prairie Warbler	Summer		**C**[p](500)						
Louisiana Waterthrush	Summer		**U**[q](200)						
Kentucky Warbler	Summer		**R**[r](200)						
Eastern Meadowlark	Winter	2003			**176w**[s](200)				9
Grasshopper Sparrow	Summer		**C**[t](200)						
Field Sparrow	Summer		**C**[u](200)						
Colonial Species									
Great Blue Heron	Spring	2003			**95**[v]		B	G	11

[a]Size of breeding population not known but appears to meet IBA threshold. Three pairs found nesting in offshore duck blinds and birds observed with broods within large marshes.
[b]Breeding population increasing annually and will likely reach IBA threshold in the near future.
[c]Small concentration area appears to be forming near the mouth of the Pamunkey River with at least 1 communal roost.
[d]Moderate winter concentration areas noted near Pamunkey Indian Reservation and landfill in King and Queen County. Further investigation needed.
[e]Along with Back Bay this area likely supports the largest population within the region. Population projection based on breeding density estimate and habitat availability.
[f]Along with Back Bay this area likely supports the largest population within the region. Population projection based on observations and habitat availability.
[g]Size of breeding population not completely known. Birds known to nest in offshore duck blinds and some farm structures within the area but survey of all available structures not completed. Population likely exceeds threshold.
[h]Extensive habitat for this species within the area. Area likely meets population threshold. No systematic estimate available.
[i]Species fairly common and likely exceeds population threshold. Walkerton CBC (which represents a small portion over the broader area) recorded 33 in 2003. No systematic population data available from the breeding season.
[j]Extensive habitat for this species within the area. Area likely supports thousands of individuals. No complete population estimate available.
[k]Area may reach population threshold. No overall population estimate.
[l]Considerable habitat available within area. Area likely meets population threshold. No systematic survey or population estimate available.
[m]Area not likely to meet population threshold. Species is regular breeder. No population estimate has been made.
[n]Considerable habitat in western portion of area. Aea may reach population threshold. No overall population estimate.
[o]Area may reach population threshold. No overall population estimate.
[p]Species common along marsh edges, shrublands, and regenerating pinelands and likely reaches population threshold. No overall population estimate.

[q]Species breeds along forested ravines. Species is not likely to reach population threshold. No overall population estimate.
[r]Species breeds in low forests but does not likely reach population threshold. No overall population estimate.
[s]Extensive habitat available within area. Species almost certainly meets population threshold. No population estimate is available.
[t]Species is common breeder and habitat is extensive. Population almost certainly meets threshold.
[u]Species is common breeder and habitat is extensive. Population almost certainly meets threshold.
[v]Several relatively small colony located within area.

III B. Source Details

Detail the sources of data noted in the "Species List and Population Data" (III A) Section. If additional space is needed, you may attach copies of this form to the nomination.

1. Watts, B. D. A survey of duck blinds for nesting birds within the Chesapeake Bay. Unpublished data.

2. Paxton, B. J. and B. D. Watts. 2003. Bird surveys of Lee and Hill Marshes on the Pamunkey River: Possible affects of sea-level rise on marsh bird communities. Center for Conservation Biology Technical Report Series. CCBTR-03-02. College of William and Mary, Williamsburg, VA 31 pp.

3. Watts, B. D. and M. A. Byrd. 2006. Virginia Bald Eagle nest and productivity survey: Year 2006 report. Center for Conservation Biology Technical Report Series, CCBTR-06-11. College of William and Mary, Williamsburg, VA 31 pp.

4. Watts, B. D. and M. U. Watts. A survey of the Pamunkey and Mattaponi River concentration area on 11 July, 2006. Unpublished Data.

5. Watts, B. D. Observations of wintering eagles on the upper York River. Unpublished Data.

6. Watts, B. D. population projection based on surveys and habitat availability.

7. Watts, B. D. 2003. An evaluation of nest box use by Barn Owls and the initiation of a new box program on coastal marshlands in Virginia. Center for Conservation Biology Technical Report Series, CCBTR-03-09. College of William and Mary, Williamsburg, VA. 16 pp.

8. Watts, B. D. and D. M. Whalen. 2005. An evaluation of nest box use by Common Barn Owls in Virginia. *The Raven* 75:71-77.

9. Kain, T. 2003. Virginia Christmas Bird Counts: 2002-2003 season. Raven 74:18-63.

10. Atwood, F. 2006. East section. Virginia Birds 2:8-9.

11. Watts, B. D. 2004. Status and distribution of colonial waterbirds in coastal Virginia: 2003 breeding season. CCBTR-04-06. Center for Conservation Biology, College of William and Mary, Williamsburg, VA 25 pp.

IV. IBA Criteria

Proposed State Level Criteria – Mark all that apply
See Instruction IV for **Explanations of Criteria**.

Code	State Definition	Mark all criteria that apply
D 1.	Endangered, threatened, or vulnerable species: The site sustains a breeding or non-breeding population of one or more bird species, sub-species, or isolated populations that is/are endangered, threatened or vulnerable to extirpation.	Yes
D 3.	The site contains a significant suite of species associated with a habitat type that is representative, rare, or threatened in Virginia.	Yes
D 4.	The site contains a significant concentration of one or more species during the breeding season, winter, or during migration.	Yes

V. Habitat Details

See Instruction **V** for **List of Habitats** at both levels below.

	Major vegetation community types	Predominant plant species	Cover %
	Pine Plantation	Loblolly pine	9032 ha
	Mixed Forest	Loblolly Pine	702 ha
		Various oaks	
		Red Maple	
1.	Deciduous Forest	Various oaks	16451 ha
		Hickories	
		Red maple	
		American beech	
2.	Row Crops	Corn, soy beans, cotton	15294 ha
	Pasture	Various grass species	

	Idle Grassland		
3.	Forested Wetlands	Red maple	5569 ha
4.	Oligohaline, Tidal Fresh Marshes	*Peltandra*	4084 ha
		Wild rice	
		Spartina cynosuroides	

VI. Land Use

See Instruction VI for description of **Land Uses**. Mark each land use at the site, circle its predominance, and (if known) provide an estimate of the percent cover at the site currently devoted to the land use. You may enter brief notes to clarify some land uses. Detailed explanations of land uses should be reported in Text Summary, section IX.

Check Here	Land Use	Predominance			Cover %	Notes
X	Agriculture 1. Row crops, small grains	**Major**	Minor	Unknown		
X	Agriculture 2. Grasslands (pasture, hay)	**Major**	Minor	Unknown		
X	Fisheries/aquaculture	Major	**Minor**	Unknown		
X	Forestry	**Major**	Minor	Unknown		
X	Hunting	**Major**	Minor	Unknown		
	Military	Major	**Minor**	Unknown		
X	Nature Conservation / research	Major	**Minor**	Unknown		
	Not utilized	Major	Minor	Unknown		
	Other	Major	Minor	Unknown		
X	Tourism / recreation	Major	**Minor**	Unknown		
	Unknown	Major	Minor	Unknown		
X	Urban / industrial / transport	Major	**Minor**	Unknown		
	Water management	Major	Minor	Unknown		

VII. Threats

See Instruction VII for description of **Threat Codes.** Indicate all threats and the relative level of the threat by entering (L) Low, (M) Medium, (H) high, (U) Unknown in front of all that apply. You may enter notes to clarify some threats. However, detailed explanations of threats should be reported in Text Summary, section IX.

Enter L,M,H,U	Threat	Notes
L	Abandonment/land management reduction	
L	Agricultural expansion/intensification	
L	Aquaculture/fisheries	Contamination of fisheries (prey base)
L	Burning of vegetation	
M	Dam/dyke/barrage construction/operations	
L	Disturbance to birds	
L	Draining wetlands	
L	Dredging/canal building (irrigation)	
L	Filling wetlands	
L	Forest grazing (by native or domestic herbivores)	
M	Groundwater extraction	
M	Industrialization/urbanization	Residential development
M	Infrastructure (roads, power lines, cell towers, etc.)	Residential development
L	Intensified forest management (please elaborate)	
L	Isolation/fragmentation	
M	Mineral/oil/peat extraction	Sand mining
M	Natural events	Erosion of tidal fresh marshes
M	Nonnative (exotic) animal/plant introduction	Expansion of exotics
L	Other	
L	Pesticide application (non-agricultural)	
M	Plantation forestry (Afforestation) on previously open land	
L	Recreation/tourism	

L	Unsustainable exploitation of birds	

Site Name: Pamunkey and Mattaponi Rivers

VIII. Protected Areas

Complete only if this site contains or abuts protected area(s)!

Enter name and descriptions of protected areas contained within or adjacent to this site.
See **Instruction VIII**

1. Name of protected area: Mattaponi River Megacomplex – The Nature Conservancy	
Designation:	**Area:** circle one: hectares, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **847.8**

2. Name of protected area: Cumberland Marsh Preserve – The Nature Conservancy	
Designation:	**Area:** circle one: hectares, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **486.9**

3. Name of protected area: Pamunkey Indian Reservation – The Pamunkey Tribe	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **449.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles

2. Name of protected area: Mattaponi Indian Reservation – Mattaponi Tribe	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles **30.6**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, I**s contained by IBA,** Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares,** acres, sq. miles

IX. Text Summary

Use the following space for additional descriptions of site details.

General Site Description: The tidal fresh and oligohaline reaches of the upper York River include the Pamunkey and Mattaponi rivers from their confluence at West Point to near Route 360 on the Pamunkey and above Walkerton on the Mattaponi. These tributaries contain extensive forested wetlands and one of the largest complexes of tidal fresh and oligohaline marshes in the mid-Atlantic region. These marshes support their characteristic breeding bird community of King Rail, Least Bitterns, and Red-winged Blackbirds. They also support thousands of Sora and Tree Swallows during fall migration. Forested wetlands support several species of neotropical migrants during the breeding season and are important stopover habitats during fall migration. These patches support large communal roosts of mixed blackbirds during the winter including the Rusty Blackbird. The surrounding uplands are rural and dominated by agriculture.

General Ornithological Information: Compared to other areas within the coastal plain of Virginia and other habitat types, the Pamunkey and Mattaponi rivers have received relatively little attention by the ornithological community. Wintering waterfowl have been surveyed since the 1950s. Breeding Bald Eagles have been surveyed since the 1960s. Colonial waterbirds have been surveyed since the 1980s. Ospreys, bank-nesting birds, and birds nesting in offshore duck blinds were surveyed in 1995. A survey of the breeding and winter bird communities within Lee and Hill Marshes was conducted in 2003. Surveys were initiated within selected marshes on the Mattaponi in 2006. Bald Eagle shoreline surveys were conducted in the summer of 2006. A Christmas Bird Count is located in Walkerton. The extensive marshes are known to be important staging areas for Sora and various swallow species during fall migration but no focused work has been conducted.

Research / conservation projects: Although investigations of selected taxa have been conducted, considerable gaps in understanding currently exist and many research projects are needed. Although several private landowners have conducted significant conservation work over the years, land protection and targeted conservation projects are just beginning.

Habitat / Land Use: The delineated area includes most of the tidal fresh reach of the upper York River, associated emergent and forested wetlands, and the surrounding rural landscape that includes extensive farmland and mixed forest. Landuse is primarily farming with an increasing component of residential and urban development.

Other Flora / Fauna:

Protected Areas: Although many large tracts of land are being managed under private ownership, there are very few lands within protected status. Holders include The Nature Conservancy and the Pamunkey and Mattaponi tribes.

Threats: The primary threats that are of concern include the loss of marshes to sea-level rise and the conversion of open land to residential. Over the past decade, the oligohaline marshes have begun to exhibit a transition in vegetation related to sea-level rise. Loss of marsh area and/or the transition to plants more adapted to inundation will cause a shift in the community of birds that depend on these marshes. These marsh types are rare within the region. Until recently, the upland landscape within the area has remained rural with relatively little development pressure. Since 2000 there has been an increase in residential development,

particularly along primary shorelines. Many of the species that depend on habitats within the area are sensitive to development.